

In the Claims:

1-16. (Canceled)

17. (Currently Amended) A method for digitally recording an analog audio signal, the method comprising:

(a) receiving an analog audio signal played at an increased speed and containing audio information and signal pause information;

(b) converting the analog audio signal played at an increased speed into a digital audio signal comprising audio information data and signal pause duration data;

(c) storing the audio information data of the digital audio signal as information data blocks and the signal pause duration data of the digital audio signal as signal pause data blocks having different time durations in a memory, wherein each information data block contains an information data block identifier and audio information data, and each signal pause data block contains a signal pause data block identifier and signal pause duration data specifying a length of a pause between audio events, and the audio information data and the signal pause duration data represent outputs at a normal speaking speed;

(d) generating a plurality of audio information data sequences by sequentially reading the information data blocks and the signal pause data blocks, the audio information data sequences being separated by the signal pause data blocks if an assigned time duration of the signal pause data block is higher than a predetermined time duration; and

(e) producing an index table by sequentially reading the information data blocks and the signal pause data blocks.

18. (Canceled)

19. (Previously Presented) The method of claim 17, wherein a start of an audio information data sequence is stored as start address for a first address pointer of the index table and an end of the audio information data sequence is stored as a second address pointer of the index table.

20. (Previously Presented) The method of claim 17, wherein producing the index table comprises processing the sequentially read data blocks.

21. (Currently Amended) The method of claim 20, further comprising, while processing the data, filtering out a succession of information data blocks between two adjacent signal pause data blocks if a number of information data blocks does not exceed a particular minimum value and the signal pause of the two adjacent signal pause data blocks exceeds a particular first time limit value.

22. (Previously Presented) The method of claim 21, wherein the minimum value is 1.

23. (Previously Presented) The method of claim 21, wherein the first time limit value is 0.5 seconds.

24. (Previously Presented) The method of claim 20, further comprising, while processing the data, overwriting signal duration data of signal pause data blocks whose signal pause duration exceeds a particular second time limit value with signal duration data having a particular nominal signal duration.

25. (Previously Presented) The method of claim 24, wherein the second time limit value is 10 seconds and the nominal signal duration is 2 seconds.
26. (Previously Presented) The method of claim 17, wherein the digital audio data are compressed before storage.
27. (Canceled)
28. (Previously Presented) The method of claim 17, wherein all the data blocks are of a same size and correspond to a particular basic unit of duration.
29. (Previously Presented) The method of claim 28, wherein the basic unit of duration is 30 ms.
30. (Previously Presented) The method of claim 17, wherein a succession of information data blocks which is not separated by a signal pause data block whose signal pause duration data amount to a signal pause of more than 2 seconds is detected as a audio information data sequence.
31. (Previously Presented) The method of claim 17, wherein, when receiving the analog audio signal, a playing speed of a data medium on which the analog audio signal is recorded can be set.
32. (Currently Amended) A method for digitally recording an analog audio signal with automatic indexing, the method comprising:

(a) receiving an analog audio signal played at an increased speed and containing audio information and signal pauses;

(b) converting the analog audio signal played at an increased speed into digital audio data comprising audio information data and signal pause duration data specifying a length of a pause between audio events;

(c) storing the converted digital audio data, such that the converted digital audio data represents an output at a normal speaking speed;

(d) reading the stored digital audio data sequentially;

(e) deciding whether the digital audio data are audio information data or signal pause duration data;

(f) storing the audio information data as information data blocks and the signal pause duration data as signal pause data blocks in a memory; wherein each information data block contains an information data block identifier and audio information data, and each signal pause data block contains a signal pause data block identifier and signal pause duration data,

(g) reading the stored data blocks sequentially in order to produce a data structure for managing the indexing, wherein a succession of information data blocks which is not interrupted by a signal pause with a pre-determined duration being detected as an audio information data sequence whose start and end are stored in the data structure for managing the indexing; and

(h) producing an index table by sequentially reading the information data blocks and the signal pause data blocks.

33. (Previously Presented) The method of claim 32, wherein the data structure for managing the indexing is the index table.

34. (Previously Presented) The method of claim 33, wherein the start and end of an audio information data sequence are stored as start address for a first information data block and as an end address for a last information data block within the memory in address pointers of the index table.

35. (Canceled)

36. (Previously Presented) The method of claim 33, further comprising, while processing the data, filtering out a succession of information data blocks between two adjacent signal pause data blocks if a number of information data blocks does not exceed a particular minimum value and the signal pause of the two adjacent signal pause data blocks exceeds a particular first time limit value.

37. (Previously Presented) The method of claim 36, wherein the minimum value is 1.

38. (Previously Presented) The method of claim 36, wherein the first time limit value is 0.5 seconds.

39. (Previously Presented) The method of claim 33, further comprising, while processing the data, overwriting the signal pause duration data of signal pause data blocks whose signal pause duration exceeds a particular second time limit value with signal duration data having a particular nominal signal duration.

40. (Previously Presented) The method of claim 39, wherein the second time limit value is 10 seconds and the nominal signal duration is 2 seconds.

41. (Previously Presented) The method of claim 32, wherein the digital audio data are compressed before storage.

42. (Canceled)

43. (Previously Presented) The method of claim 32, wherein all the data blocks are of a same size and correspond to a particular basic unit of duration.

44. (Previously Presented) The method of claim 43, wherein the basic unit of duration is 30 ms.

45. (Previously Presented) The method of claim 32, wherein a succession of information data blocks which is not separated by a signal pause data block whose signal pause duration data amount to a signal pause of more than 2 seconds is detected as an audio information data sequence.

46. (Previously Presented) The method of claim 32, wherein, when receiving the analog audio signal, a playing speed of a data medium on which the analog audio signal is recorded can be set.

47. (Currently Amended) A method comprising:

receiving an analog audio signal played at an increased speed and containing audio information and signal pauses;

converting the analog audio signal played at an increased speed into digital audio data having audio information data and signal pause duration data, the signal pause duration data

specifying a length of a pause between audio events;

storing the audio information data as information data blocks in a memory, wherein the audio information data represents an output at a normal speaking speed, wherein each information data block contains an information data block identifier and audio information data;

storing the signal pause duration data as signal pause data blocks in the memory, wherein the signal pause duration data represents an output at a normal speaking speed, wherein each signal pause data block contains a signal pause data block identifier and signal pause duration data;

sequentially reading the stored data blocks from the memory;

producing an index table by sequentially reading the information data blocks and the signal pause data blocks; and

storing a start address and an end address of a succession of information data blocks which is not interrupted by a signal pause with a pre-determined duration in the index table.

48. (Previously Presented) The method of claim 47, further comprising filtering out a succession of information data blocks between two adjacent signal pause data blocks when a number of information data blocks does not exceed a particular minimum value and the signal pause of each of the two adjacent signal pause data blocks exceeds a particular first time limit value.

49. (Previously Presented) The method of claim 48, further comprising overwriting the signal pause duration data of signal pause data blocks whose signal pause duration exceeds a particular second time limit value with signal pause duration data having a predetermined signal pause duration.

50. (Currently Amended) An apparatus comprising:

an analog audio signal input for receiving an audio signal played at an increased speed;
an analog-to-digital converter for converting the analog audio signal played at an increased speed into digital audio data having audio information data and signal pause duration data;

a memory configured to store audio information data of the digital audio data in information data blocks and to store signal pause duration data of the digital audio data in signal pause data blocks, wherein each information data block contains an information data block identifier and audio information data, and each signal pause data block contains a signal pause data block identifier and signal pause duration data specifying a length of a pause between audio events, and the audio information data and the signal pause duration data represent outputs at a normal speaking speed; and

a data processor configured to read sequentially the stored data blocks and the signal pause data block, and store a start address and an end address of a succession of information data blocks which is not interrupted by a signal pause with a first predetermined duration in an index table in the memory.

51. (Currently Amended) The apparatus of claim 50 wherein the data processor is further configured to filter out a succession of information data blocks between two adjacent signal pause data blocks when a number of information data blocks is less than a predetermined number and the signal pause of each of the two adjacent signal pause data blocks exceeds a predetermined time threshold.

52. (Previously Presented) The apparatus of claim 50 wherein the data processor is further configured to overwrite the signal phase duration data of signal pause data blocks whose signal pause duration exceeds a second predetermined duration with signal pause duration data having a third predetermined duration that is less than the second predetermined duration.